

RESPONSE TO COMMENTS

on the Draft NPDES Permit and Fact Sheet for BP Exploration (Alaska), Inc. (BPXA), Prudhoe Bay Seawater Treatment Plant

NPDES Permit Number AK-002984-0

January 2011

Background

On October 28, 2010, the U.S. Environmental Protection Agency, Region 10 (EPA) issued a draft National Pollutant Discharge Elimination System (NPDES) permit for the Prudhoe Bay Seawater Treatment Plant (STP) for public review and comment. The Prudhoe Bay STP is owned and operated by BP Exploration (Alaska), Inc. (BPXA). The draft permit proposed to reauthorize permit coverage for the filter backwash (Outfall 001) from the STP. Previously authorized discharges, the domestic wastewater system (Outfall 002) and the marine life return system (Outfall 003) have been discontinued by BPXA and will not be included in EPA's reissued permit.

The public comment period ended on November 29, 2010. EPA received comments on the documents from the permittee (BPXA) and one comment/question from the Inupiat Community of the Arctic Slope (ICAS).

Response to Comments Received During the Public Comment Period

I. General Comment

The Inupiat Community of the Arctic Slope (ICAS) submitted the following question, "How have the concerns we participated in over many months been incorporated to this document?"

Response

The Prudhoe Bay STP permit includes effluent limitations for temperature, and monitoring requirements for whole effluent toxicity (WET). These are new requirements as compared to the previous permit, which makes it more stringent. These changes were included by EPA in response to concerns expressed by tribal governments on the North Slope.

II. Fact Sheet

Comment II.1. Page 11, Table 1.

Temperature -Open Water Conditions should read 16°C, and Temperature - Under Ice Conditions should read 17.3°C. The mixing zone (MZ) application (refer to Table 3 in MZ

application) showed a 15.6°C temperature difference in summer and a 17.3°C difference in winter which equates to a required dilution of 14.6:1 for summer and 16.3:1 for winter. It appears that these dilutions were incorrectly transformed into temperature differences in the fact sheet. Dilution modeling indicated that both the summer (15.6°C) and winter (17.3°C) temperature differences would be met with a 100-m mixing zone.

Response II.1

EPA has revised the document to include the temperature corrections.

Comment II.2. Page 11, Table 1 - TRC

BPXA requests that the average monthly limit for total residual chlorine (TRC) for under-ice conditions be raised from 50 µg/L to 100 µg/L which is the Alaska Department of Environmental Conservation's (ADEC) minimum compliance evaluation level.

Response II.2

The Alaska Water Quality Standards (AWQS) for TRC is 13.0 µg/L acute and 7.5 µg/L chronic. In its mixing zone application submitted to ADEC in August 2010, BPXA indicated it would be able to meet permit limits at the edge of the 100 meter mixing zone. Additionally, data from 2005 – 2009 indicate the average monthly limit of 50 µg/L has been consistently met. For these reasons, EPA is retaining the 50 µg/L TRC limit for under ice conditions.

Comment II.3. Page 12, Table 1. Footnote No. 2

Because (1) chlorination is solely performed downstream of the strainers; and (2) BPXA no longer uses clarifying agents, BPXA requests that the footnote be amended to read "Applicable when biotreatment is conducted upstream of the strainer system or when chlorination/dechlorination chemicals are used *upstream of the strainer system or otherwise discharged to Outfall 001*". It is our understanding that EPA required testing when these chemicals were used at some point on the outfall system that had a potential to be discharged to the receiving water environment. The reason for this clarification is that seawater treatment does occur downstream of the strainers on the seawater used for injection into the oil reservoir that has no possibility of being discharged to the receiving water environment from Outfall 001 during normal operation. The results of daily residual chlorine monitoring conducted from 2005 through the end of 2009 at Prudhoe STP were provided with the permit application. Total residual chlorine levels are collected daily and the results show the average total residual chlorine levels ranged from 6.7 to 19.9 ug/L. Only three months during the previous five year period measured any daily total residual chlorine above the quantification level of 0.100 mg/L, with a highest ever of 120 ug/L (0.120 mg/L). Given the very low levels of chlorine found in the effluent and lack of direct injection of chlorine into the outfall stream the requirement for WET testing during chlorination seems unwarranted.

Response II.3

EPA has revised the document to read: "*Applicable when biotreatment is conducted upstream of the strainer system or when chlorination/dechlorination chemicals are used upstream or within the strainer system, or otherwise discharged to Outfall 001.*"

Comment II.4. Page 12, Section IV.B – Outfall 001, Bullet 2 – TRC

BPXA requests that the average monthly limit for TRC for under-ice conditions be raised from 50 µg/L to 100 µg/L which is ADEC's minimum compliance evaluation level.

Response II.4

See EPA's Response II.2, above.

Comment II.5. Page 12, Section IV.B – Outfall 001, Bullet 2 – Temperature

Temperature differences should read 16°C instead of 15°C and 17.3°C instead of 16.3°C

Response II.5

EPA corrected the temperature values and Table 1 has been revised to read: Temperature – Open Water Conditions, not to exceed 16° above ambient, and Temperature – Under Ice Conditions, not to exceed 17.3° above ambient.

Comment II.6. Page 12, Section IV.B. – Outfall 001, Bullet 4 – WET Testing

BPXA requests that this requirement read: "... Applicable when biotreatment is conducted upstream of the strainer system or when chlorination/ dechlorination chemicals are used *upstream of the strainer system or otherwise discharged to Outfall 001.*" In the case of chlorination/ dechlorination, BPXA interprets this to mean when chlorination/dechlorination chemicals are used upstream or through the strainers.

Response II.6

1. EPA has revised the document to read: "*Whole effluent toxicity (WET) monitoring is required quarterly when biotreatment activities are conducted upstream of the strainers or when chlorination/dechlorination chemicals are used upstream of, or within, the strainer system or otherwise discharged to Outfall 001. This is a new requirement.*"

Comment II.7. Page 13, Table 2

The dilution factors listed in the table are actually dilutions that should read: 14.6:1, 16.3:1, 8.2:1, and 12.3:1. See BPXA's mixing zone application. These dilution factors were used to establish the permit limits. If expressed as dilution factors or differences from background they would be: 15.6, 17.3, 9.2, and 13.3 which has ramifications in terms of the permit limits that were established.

Response II.7

EPA corrected the dilution factors in Table 2.

Comment II.8. Page 15, III.G.1.d.

This section requires the noncompliance reporting with 24 hours of any minor violation in permit limits from Table 1 which would include flow, pH, temperature difference, or TRC. BPXA feels that this reporting is beyond that required by most NPDES permits including other STPs on the North Slope and request that it be deleted. The standard reasonable potential analysis that is used to determine the maximum expected effluent concentration and permit limits typically utilizes either the 95% or 99% confidence interval which statistically would have either 5% or 1% of all data exceeded this criteria. Because monthly DMRs are required by the permit, any exceedances will be reported and flagged on a monthly basis along with explanations of their

cause. Also, Section III.G.1. of this same section already covers major violations that may endanger health or the environment.

Response II.8

EPA has revised the permit to require reporting within twenty-four (24) hours any of violation of the maximum daily limits for TRC. Violations of all other effluent limits are to be reported at the same time that discharge monitoring reports are submitted. 24-hour noncompliance reporting is standard boilerplate language applicable to all NPDES permits.

The following 24-hour noncompliance reporting was a requirement of the previous permit: Reporting Noncompliance – “Any violation of a maximum daily discharge limitation for any of the pollutants listed in the permit...”

Comment II.9. Page 15, Section IV.E.7

Note: The filters and filter backwash system has been decommissioned (i.e. filter media removed from filter vessels) and is no longer used at the Prudhoe STP as it was determined that the turbidity and suspended sediments were sufficiently low so as not to be a problem with respect to down hole injection into the oil reservoir.

Response II.9

EPA has revised the document to read: *“The permit specified that organic biocides may be used to control sulfate-reducing bacteria. If strainer effluent containing such constituents is discharged through Outfall 001 the total quantity of organic biocides shall not exceed 50 gal. per treatment and no backwash discharge shall be made until forward flow has been resumed and an additional 5,000 bbl of uncontaminated seawater have passed through the treated filter. The types and quantities of the organic biocides must be reported in an annual report.”*

Comment II.10. Page 16, Table 3, Footnote No. 1.

Request change to footnote to read: *“Applicable when biocides and/or chlorination/dechlorination chemicals are utilized upstream of the strainer system or otherwise discharged to Outfall 001.”*

Response II.10

EPA has revised the document to read: *“Applicable when biotreatment is conducted upstream of the strainer system or when chlorination/dechlorination chemicals are used upstream, or within, the strainer system, or otherwise discharged to Outfall 001.”*

Comment II.11. Page 17, Section V.E.

Suggest amending the end of first sentence to include “...when chemicals are used upstream of the strainer.” At points downstream of the strainer, the treated seawater is not normally returned to the inlet reservoir or main outfall. Summer 2011 maintenance will include removing the recycle lines (from the filter backwash, booster pump recycle, and transfer pipe recycle) thereby removing the potential for leaks through currently closed valves.

Response II.11

EPA has revised the document to read: *“EPA is requiring the permittee to conduct quarterly (i.e., four times per year, every three months) short-term chronic toxicity tests*

on effluent samples from Outfall 001 during quarters when biocides, and/or chlorination/dechlorination chemicals are used upstream of, or within, the strainer system.”

Comment II.12. Page 18, Section VI.E.

The toxicity trigger should be 13.3 TU_c and the RWC should be 7.5%. The toxic trigger of 12.3 TU_c listed here is incorrectly based on a dilution of 12.3:1. This dilution was calculated from the chronic Alaska water quality standard (AQWS) for total residual chlorine (TRC) of 7.5 µg/L and a regulatory testing limit of 100 µg/L, resulting in a dilution factor of: $100/7.5 = 13.3$ (12.3:1 dilution) assuming the background concentration in the receiving water is 0.0 µg/L. Using the dilution factor of 13.3, the RWC should be 7.5% effluent and the toxic trigger TU_c should be 13.3.

Response II.12

EPA has revised the document to include the corrected chronic toxicity trigger for WET testing and the RWC.

Comment II.13. Page 18, Section VII.B. – Operations and Maintenance Plan.

This requirement does not appear in the draft permit, and BPXA requests that it be deleted from the fact sheet. The procedures and requirements described in this section will be addressed and covered in the BMP and QAP for the Prudhoe STP and will include items listed in the draft permit. The Prudhoe STP does have written operating procedures describing plant startup, shut down, and normal operating procedures.

Response II.13

The development of an Operations and Maintenance Plan is not a requirement of the permit and this language has been removed from the fact sheet.

Comment II.14. Page 19, Section VII.D. – Basis for Annual Report.

BPXA requests that the requirement for reporting the use of biocides and/or chlorination/dechlorination chemicals used in the Combined Wastewater Discharge (Outfall 001) be removed from the permit. At the present time, no biocides or chlorination/dechlorination chemicals are utilized upstream of the seawater strainer system. Except in the case of an accident, such chemicals would not be discharged to receiving water environment. Also, reporting of this inventory information in the annual report seems to imply that these quantities of chemicals are being discharged to the environment when in fact that is not the case. These are process treatment chemicals, not additives to the wastewater being discharged.

Response II.14

EPA has revised the Annual Report requirement to read: *“The proposed permit requires the permittee to complete and submit an annual report that summarizes the monthly use of any biocides and/or chlorination/dechlorination chemicals that are being used upstream of, or within, the strainer system or otherwise discharged to Outfall 001.”*

Comment II.15. Page 29, Bullet 2.

The equations for reasonable potential evaluation with numeric criteria are in error. This can best be seen for the example of a 1:1 dilution. The final reduced equation in this section for a 1:1

dilution (50% effluent & 50% receiving water, $V_e = V_d$), further reduces to $C_d = C_e$. This is in error, when in fact the final receiving water concentration for a 1:1 dilution, C_d should be 50% of C_e or $C_d = C_e/2$. This error arises in the first equation that should read:

$$C_d \times (V_d + V_e) = (C_e \times V_e) + (C_u \times V_d),$$

where the final mixed volume is the sum of the receiving water volume used for mixing and the effluent volume. Note: This equation error may be the cause of the other dilution factor errors that crop up in the permit and fact sheet.

Response II.15

EPA has corrected the error in the reasonable potential equation.

III. Comments on the Draft Permit

Comment III.1. Page 3, Table 1.

Request change: Temperature - Open Water Conditions should read 16°C and Temperature - Under Ice Conditions should read 17.3°C. The mixing zone (MZ) application (refer to Table 3 in MZ application) showed a 15.6°C difference in summer and a 17.3°C difference in winter which equates to a required dilution of 14.6:1 for summer and 16.3:1 for winter. It appears that these dilutions were incorrectly transformed into temperature differences. Dilution modeling indicated that both the summer (15.6°C) and winter (17.3°C) temperature differences would be met with a 100-m mixing zone.

Response III.1

EPA has corrected the temperature errors within Table 1.

Comment III.2. Page 3, Table 1 – TRC

BPXA requests that the average monthly limit for TRC for under-ice conditions be raised from 50 µg/L to 100 µg/L which is ADEC's minimum compliance evaluation level.

Response III.2

In its mixing zone application submitted to ADEC in August 2010, BPXA indicated it would be able to meet permit limits at the edge of the 100 meter mixing zone.

Additionally, data from 2005-2009 indicated the average monthly limit of 50 µg/L has been consistently met. For these reasons, EPA is retaining the 50 µg/L TRC limit for under ice conditions.

Comment III.3. Page 3, Section I.B.1, Table 1, Note 2.

Because (1) chlorination is solely performed downstream of the strainers; and (2) BPXA no longer uses clarifying agents, BPXA requests that the footnote be amended to read "Applicable when biotreatment is conducted upstream of the strainer system or when chlorination/dechlorination chemicals are used *upstream of the strainer system or otherwise discharged to Outfall 001*". It is our understanding that EPA required testing when these chemicals were used at some point on the outfall system that had a potential to be discharged to the receiving water environment. The reason for this clarification is that seawater treatment does occur downstream

of the strainers on the seawater used for injection into the oil reservoir that has no possibility of being discharged to the receiving water environment from Outfall 001 during normal operation. The results of daily residual chlorine monitoring conducted from 2005 through the end of 2009 at Prudhoe STP were provided with the permit application. Total residual chlorine levels are collected daily and the results show the average total residual chlorine levels ranged from 6.7 to 19.9 ug/L. Only three months during the previous five year period measured any daily total residual chlorine above the quantification level of 0.100 mg/L, with a highest ever of 120 ug/L (0.120 mg/L). Given the very low levels of chlorine found in the effluent and lack of direct injection of chlorine into the outfall stream the requirement for WET testing during chlorination seems unwarranted.

Response III.3

EPA has revised the permit to read: *“Applicable when biotreatment is conducted upstream of the strainer system, or when chlorination/dechlorination chemicals are used upstream or within the strainer system or otherwise discharged to Outfall 001.”*

Comment III.4. Page 3, Section I.B.1, Table 1.

Permittee requests adding a note to Table 1 that would become applicable after planned 2011 maintenance where all three recycle lines (from filters, booster pumps and transfer pumps) are removed. The specific request is to reduce monitoring for TRC to only periods where there is a potential for the return of TRC to the inlet reservoir/ main outfall. Currently these recycle lines are valved closed, with a potential for TRC to return to the inlet reservoir only when a valve is accidentally opened or if potential leak by occurs. When the recycle lines are removed in 2011, the potential route for TRC to enter the discharge stream from recycle lines is also eliminated.

Response III.4

Since BPXA did not make this request in its permit application on DATE, EPA is unable to grant this request at this time without undergoing another public review and comment period. BPXA may choose to submit a formal modification to its permit application requesting changes to the permit since the recycle lines are removed in 2011. Making the requested changes to the permit would result in a major modification pursuant to 40 C.F.R. 122.62(a)(15).

Comment III.5. Page 4, Sections I.D.2 and I.D.3.

BPXA requests that these two paragraphs be deleted from the permit or revised to include *“if those products are used upstream of the strainers.”* Although permitted for use, at the present time BPXA does not utilize coagulants or flocculants as water clarifying agents at the Prudhoe STP and has not utilized clarifying agents over the past ten years.

Response III.5

EPA has omitted Section I.D.2 since coagulants and flocculants are no longer used at the facility. EPA has modified Section I.D.3 to read: *“If used upstream of the strainer system, the permittee shall maintain records of the daily use of any water clarifying agents (recorded for each type of water clarifying agent used) and daily volumes of water treated. This information shall be submitted in the monthly Discharge Monitoring Reports (DMR) and retained on site.”*

Comment III.6. Page 4, Section I.D.4.

BPXA appreciates the distinction made in the paragraph that chemicals added to the strainer system require quantification and monitoring. Chemicals added after the strainer are not part of the discharge during normal operations. A plant upset, such as a release of treated seawater, could result in a discharge of chlorinated water, triggering additional monitoring/record keeping.

Response III.6

Comment noted.

Comment III.7. Page 6, Section I.G.

The second sentence states no toxicity testing is required during quarters when no biocides or chlorination/dechlorination chemicals are used. BPXA suggests rewording this sentence as follows: "Toxicity testing is not required during quarters when no biocides or chlorination/dechlorination chemicals are used upstream or within the seawater strainer system."

Response III.7

EPA has revised the permit to read: *"Toxicity testing is not required during quarters when no biocides or chlorination/dechlorination chemicals are used upstream or within the seawater strainer system."*

Comment III.8. Page 6, Section I.G.1.

Request deletion of the second sentence. The only parameters for which testing is required in Part I.B. are temperature, pH, and TRC, none of which can be stored or taken from a 24-hr composite as a split. Should simply word to state that grab samples or recordings of these parameters will be performed during the 24-hr period during which the toxicity sample was obtained.

Response III.8

EPA has revised the permit to remove the language pertaining to split samples and that grab samples or recordings of the parameters required in Part I.B of the permit, must be taken during the same 24-hour period as the 24-hour composite sample used for the toxicity tests.

Comment III.9. Page 6, Section I.G.2(a)

Request clarification. Reword to the following: "For Outfall 001, short-term chronic toxicity tests must be conducted quarterly when organic biocides and/or disinfection chemicals are used upstream of the seawater strainer system." See previous comments above.

Response III.9

EPA has revised the permit to read: *"For Outfall 001, short-term chronic toxicity tests must be conducted quarterly when organic biocides and/or disinfection chemicals are used upstream or within the seawater strainer system."*

Comment III.10. Page 6, Table 2.

BPXA requests deletion of the 7-day topsmelt larval growth and survival test for a number of reasons. First, if modifications to the facility's plumbing are undertaken that would allow treatment chemicals to be utilized upstream of the strainers system, their use would be intermittent, short-lived, and on an as-needed basis with total system treatment taking less than

24 hours. Also, this treatment would probably not be repeated for a number of months. Therefore, a 7-day test would not be appropriate and the short-term bivalve test listed in Table 2 is typically much more sensitive and more appropriate for a short-term treatment procedure. Second, the 7-day test requires daily renewal of water which will necessitate shipment of 3-4 samples to accomplish the renewals and still be within sample hold time. Because there are no toxicity laboratories in Alaska for these species, shipment to a West Coast toxicity laboratory in WA, OR, or CA would take up to 2 days with sample delivery issues on the weekend (e.g. no Sunday deliveries). Also, flights are often delayed or canceled to and from the North Slope due to inclement weather and fog. As a result, there is a greater likelihood that the test would result in a shipping failure with the test not being completed and no chance of retesting within the quarter since the facility's strainer system would have completed treatment with no planned additional treatments within the quarter. This in turn would result in a permit violation unless BPXA performed another treatment cycle within the quarter when it may not be warranted from an engineering treatment perspective.

Response III.10

EPA has revised the note in Table 2 to say, "If biotreatment is conducted upstream of the strainer system or when chlorination/dechlorination chemicals are used upstream or within the strainer system, or otherwise discharged to Outfall 001 resulting in a continuous discharge that is less than 48 hours, then only the bivalve test is required. If the discharge exceeds a 48-hour duration and in the event the topsmelt is unavailable, the inland silverside (*M. beryllina*) larval survival and growth method may be used as a substitute..."

Comment III.11. Page 7, Section I.G.2(e)

Page 7, I.G.2(e). BPXA requests that this requirement be deleted. These intermediate calculations are of limited use because (1) laboratories do not typically report them, and (2) because the endpoint of the test is a no observed effect concentration (NOEC) and not the LC₅₀.

Response III.11

EPA disagrees with this comment and retains the LC₅₀ requirement in the permit. Monitoring of mortality every 24 hours will provide useful data indicating acute toxicity during a chronic test.

Comment III.12. Page 7, Section I.G.2.

Page 7, I.G.2. BPXA requests an additional stipulation be added to the permit. Increase the hold-time on samples from the standard 36 hours to 72 hours from the time of sample collection to the first use in the laboratory. This increase in hold time is allowed under the test protocol methodology for extenuating circumstances and will be necessary for sample shipments from the North Slope. BPXA will attempt to have the test initiated as soon as possible after sampling, but would like to have this stipulation added to the permit to preclude inadvertent test failures due to shipping issues.

Response III.12

While the regulations allow up to 72 hours for sample holding time with the approval of the Regional Administrator, sufficient data must also be provided to assure such variance does not affect the integrity of the sample. The data must then be forwarded to EPA's

Director of the Environmental Monitoring Systems Laboratory in Cincinnati, Ohio for technical review and recommendations for action on the variance application.

Due to lack of sufficient data, EPA is denying BPXA's request to add the 72 hour holding time in the permit.

Comment III.13. Page 7, Section I.G.3 – First Paragraph

There are a number of erroneous numbers in this paragraph of unknown origin. Suggest deleting the last portion of the first sentence: "with a dilution factor of 0.5." The second sentence specifies a toxicity trigger of 25%. Suggest deleting "(i.e. 25%)" from the sentence since the dilution series is specified within the paragraph.

Response III.13

EPA has deleted the erroneous numbers and the revisions read: *"The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include the receiving water concentration (RWC), which is the dilution associated with the chronic toxicity trigger, two dilutions above the RWC, and two dilutions below the RWC."*

Comment III.14. Page 7, Section I.G.3 – First Paragraph

The WET test sample dilutions and receiving water concentration (RWC) have been incorrectly calculated. The dilution of 12.3:1 is based on the chronic Alaska water quality standard (AQWS) for total residual chlorine (TRC) of 7.5 µg/L and a regulatory testing limit of 100 µg/L, resulting in a dilution factor of: $100/7.5 = 13.3$ (12.3:1 dilution) assuming the background concentration in the receiving water is 0.0 µg/L. Using the dilution factor of 13.3, the RWC should be 7.5% effluent, and the test concentrations should be 30, 15, 7.5, 3.75, and 1.875%. Based on these changes, the additional test concentrations of 64 and 100%, would be 60 and 100%.

Response III.14

EPA has corrected the dilution factor and subsequent test concentrations. The revised permit now reads: *"ADEC has authorized a 13.3:1 dilution mixing zone for WET, as such, the RWC is 7.5% effluent and the additional test concentrations shall be 30, 15, 7.5, 3.75, and 1.875% effluent. In addition to this dilution series, effluent concentrations of 60 and 100% will also be tested."*

Comment III.15. Page 8, Section I.G.4 – First Paragraph

The chronic toxicity trigger should be 13.3 TU_c not 12.3 TU_c. Refer to comment above.

Response III.15

The permit has been revised to reflect this correction.

Comment III.16. Page 8, Section I.G.4 – Initial Investigation TRE Workplan

BPXA requests that this requirement be removed from the permit or amended. BPXA requests that the prior development of an initial workplan be deleted and replaced with language that indicates that the TRE procedures would be implemented and a plan developed if chronic toxicity is indicated above the toxic trigger TU_c. Because it is expected that there would be

months between strainer system treatment procedures (if facility modifications are undertaken that allow strainer system treatment), there will be more than sufficient time to develop an initial TRE workplan prior to further testing if toxicity is found to exceed the toxic trigger.

Response III.16

The permit has been revised to include a submittal of a TRE workplan if and when chronic toxicity is triggered: *“The permittee must develop and submit to EPA a copy of the permittee’s initial investigation TRE workplan if and when chronic toxicity is detected above 13.3 TU_C. This plan shall describe the steps the permittee intends to follow in the event that chronic toxicity exceeds the threshold value, and must include at a minimum...”*

Comment III.17. Page 9, Sections I.G.5 and I.G.6.

Change the chronic toxicity trigger to 13.3 TU_C throughout these sections. See comments above.

Response III.17

The permit has been revised to include these corrections.

Comment III.18. Page 9, Section I.G.5(b)

BPXA requests that this requirement be deleted. This stipulation is standard permit language that does not apply to the Prudhoe STP operations. At the present time the system is not plumbed to be able to treat seawater upstream of the strainer system. If modifications to facility are undertaken and treatment procedures implemented, their use would be short-lived, very intermittent, and on as needed basis which would preclude retesting of the effluent when biocides and/or chlorination/ dechlorination chemicals are being used upstream of the strainer system. Because treatment processes would not be performed on an ongoing basis, retesting would be impossible on the schedule prescribed in the permit. BPXA suggests rewording to: "The permittee will retest the effluent at the next time that biocides and/or chlorination/dechlorination chemicals are used upstream of the strainer system." It is expected that it could be months before any subsequent treatment is undertaken, therefore any additional testing would probably be performed under the standard quarterly WET testing schedule specified in the permit.

Response III.18

EPA has revised the permit to read: “The permittee will retest the effluent the next time biocides and/or chlorination/dechlorination chemicals are used upstream or within the strainer system.” EPA agrees that since biocides and/or chlorination/dechlorination chemicals are used intermittently at the facility, standard accelerated testing will not likely capture any chronic toxicity exceedances beyond the period of treatment.

Comment III.19. Page 9, Sections I.G.5 and I.G.6

BPXA requests change from six more accelerated tests to retest the next time that biocides and/or chlorination/dechlorination chemicals are being used upstream of the strainers or in the strainer system. See comment above.

Response III.19

EPA has revised the permit to read: “The permittee will retest the effluent the next time biocides and/or chlorination/dechlorination chemicals are used upstream or within the strainer system.”

Comment III.20. Page 13, Section III.B.2 – First Sentence

If this requirement is kept in the final permit, BPXA suggests rewording to: The permittee must submit an annual report summarizing the monthly use of biocides and/or chlorination/dechlorination chemicals that are being used upstream of the strainers or in the strainer system.

Response III.20 – EPA has revised the permit to read: *“The permittee must submit an annual report summarizing the monthly use of any biocides, and/or chlorination/dechlorination chemicals used upstream or within the strainer system.”*

Comment III.21. Page 13, Section III.B.2 – Second to last sentence

Second to last sentence. BPXA suggests rewording to say "all historic data beginning with the start date of this permit" as much of the historic data does not exist in a readily available and/or an electronic format. Also, the facility has been operating for 25 years and current operations are not the same as those in the past due to ongoing improvements and modifications in treatment procedures. This requirement will require additional resources and BPXA will need to establish an implementation plan to carry it out beginning with data collected for this permit.

Response III.21 – EPA has revised the permit to reflect this clarification: *“The annual report must provide a comprehensive record of wastewater discharge at the facility and must include an electronic spreadsheet containing all historical data beginning with the effective date of this permit, as well as a comparison of monitoring results over time (to show any trends).”*

Comment III.22. Page 15, Section III.G.1.e.

Section requires telephone reporting of any overflow prior to the treatment works. In this case it is the treatment itself that introduces contaminants to water quality. This section is not applicable to the Prudhoe STP, because anything prior to treatment works would be the seawater intake which is the receiving water. BPXA suggests deleting this section from the permit because it is not applicable.

Response III.22

EPA has revised the permit to remove this requirement.

Comment III.23. Page 15, Section III.G.2.e

Same comment as above. This section should be deleted from the permit since it is not applicable to the Prudhoe STP.

Response III.23

EPA has revised the permit to remove this requirement.

Comment III.24. Page 19, IV.F.2.a.

Need to replace “Idaho Department of Environmental Quality” with “Alaska Department of Environmental Conservation.”

Response III.24

EPA revised the permit to correct the error.